

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	79	bifidogenic	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:42			0
2	BRS	L2	2	1 same peptide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:43			0
3	BRS	L3	310	bifidobacterium adj bifidum	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:44			0
4	BRS	L4	4	(bifidobacterium adj bifidum) same peptide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:46			0
5	BRS	L5	0	e. adj coli	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:47			0
6	BRS	L6	72487	coli	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:47			0
7	BRS	L7	29	3 same 6	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:48			0
8	BRS	L8	0	7 same peptide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:49			0
9	BRS	L9	2229	milk same peptide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:49			0
10	BRS	L10	2	1 same 9	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:49			0
11	BRS	L11	82	forssmann adj wolf-georg.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:50			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
12	BRS	L12	9	zucht adj hans-dieter.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:50			0
13	BRS	L13	2	liepke adj cornelia.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:51			0
14	BRS	L14	1	(11 or 12 or 13) and 1	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:51			0
15	BRS	L15	0	(11 or 12 or 13) and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/06 09:51			0

=> file medline caplus biosis embase scisearch agricola

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

0.21

0.21

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 09:55:09 ON 06 JUN 2003

FILE 'CAPLUS' ENTERED AT 09:55:09 ON 06 JUN 2003

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FILE 'SCISEARCH' ENTERED AT 09:55:09 ON 06 JUN 2003

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FILE 'AGRICOLA' ENTERED AT 09:55:09 ON 06 JUN 2003

=> s bifidogenic

L1 306 BIFIDOGENIC

=> s l1 (p) peptide

L2 8 L1 (P) PEPTIDE

=> duplicat remove l2

DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L2

L3 3 DUPLICATE REMOVE L2 (5 DUPLICATES REMOVED)

=> d l3 1-3 ibib abs

L3 ANSWER 1 OF 3

MEDLINE

DUPLICATE 1

ACCESSION NUMBER: 2002121041

MEDLINE

DOCUMENT NUMBER: 21845950 PubMed ID: 11856332

TITLE: Human milk provides peptides highly stimulating the growth of bifidobacteria.

AUTHOR: Liepke Cornelia; Adermann Knut; Raida Manfred; Magert

Hans-Jurgen; Forssmann Wolf-Georg; Zucht Hans-Dieter

CORPORATE SOURCE: IPF Pharmaceuticals GmbH, Hannover, Germany..

c.liepke@ipf-pharmaceuticals.de

SOURCE: EUROPEAN JOURNAL OF BIOCHEMISTRY, (2002 Jan) 269 (2) 712-8.

Journal code: 0107600. ISSN: 0014-2956.

PUB. COUNTRY: Germany; Germany, Federal Republic of

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200203

ENTRY DATE: Entered STN: 20020222

Last Updated on STN: 20020320

Entered Medline: 20020319

AB The large intestine of breast-fed infants is colonized predominantly by bifidobacteria, which have a protective effect against acute diarrhea. In this study we report for the first time the identification of human milk

\*\*\*peptides\*\*\* that selectively stimulate the growth of bifidobacteria.

Several \*\*\*bifidogenic\*\*\* \*\*\*peptides\*\*\* were purified

chromatographically from pepsin-treated human milk and identified as

proteolytically generated fragments from the secretory component of the

soluble polyimmunoglobulin receptor and lactoferrin; both of these

proteins exhibit antimicrobial effects. Hydrolysis of the identified

\*\*\*peptides\*\*\* with the gastrointestinal proteases pepsin, trypsin and

chymotrypsin did not lead to the loss of \*\*\*bifidogenic\*\*\* activity,

indicating their potential function in vivo. Sequential comparison

revealed a similar structural motif within the identified \*\*\*peptides\*\*\*

. A correspondingly designed small \*\*\*peptide\*\*\* (prebiotic

lactoferrin-derived \*\*\*peptide\*\*\* -I, PRELP-I) was found to stimulate

the growth of bifidobacteria as effectively as the native \*\*\*peptides\*\*\*

. The combination of antimicrobial and bifidobacterial growth stimulatory

activity in human milk proteins leads to highly specific compounds capable

of regulating the microbial composition of infants' large intestine.

L3 ANSWER 2 OF 3 CAPLUS COPY HT 2003 ACS DUPLICATE  
 ACCESSION NUMBER: 1995:533685 CAPLUS  
 DOCUMENT NUMBER: 122:313302  
 TITLE: Growth promotion of Bifidobacterium animalis by bovine milk proteose-peptone  
 AUTHOR(S): Etienne, L; Girardet, J. M.; Linden, G  
 CORPORATE SOURCE: Faculte des Sciences, Universite de Nancy I, Vandoeuvre-les-Nancy, 54506, Fr.  
 SOURCE: Lait (1994), 74(5), 313-23  
 CODEN: LAITAG; ISSN: 0023-7302  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The industrial strain Bifidobacterium animalis was used as assay organism to evaluate bifidobacterial growth-promoting activity of bovine milk proteose-peptone. This proved to be a better growth-promoting factor than bovine casein. The \*\*\*bifidogenic\*\*\* activity was found mainly in the proteose-peptone hydrophobic fraction contg. component 3, although the glycan moiety was a weak growth-promoter. Proteose-peptone digests by various proteolytic enzymes caused great enhancement of B animalis growth, particularly the Pronase digest. Size-exclusion chromatog. of digests showed that the more active \*\*\*peptides\*\*\* had a mol. mass distribution of 1000-5000 Da.

L3 ANSWER 3 OF 3 MEDLINE  
 ACCESSION NUMBER: 89260007 MEDLINE  
 DOCUMENT NUMBER: 89260007 PubMed ID: 2657187  
 TITLE: [The bifidogenic effect of breast milk. Theories and facts].  
 Die bifidogene Wirkung der Muttermilch. Theorien und Fakten.  
 AUTHOR: Heine W  
 SOURCE: KINDERARZTLICHE PRAXIS, (1989 Mar) 57 (3) 109-16. Ref: 36  
 Journal code: 0376356. ISSN: 0023-1495.  
 PUB. COUNTRY: GERMANY, EAST: German Democratic Republic  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LANGUAGE: German  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 198907  
 ENTRY DATE: Entered STN: 19900306  
 Last Updated on STN: 19900306  
 Entered Medline: 19890705

AB Human milk has the unique capability to originate and maintain a predominance of bifidobacteria in the large bowel of infants. There is evidence, that besides other protective factors this special microbiologic effect may have beneficial influences on the resistance against enteral infections as well as on a symbiotic utilization of some milk components. This is the reason, why there have been many attempts in past to imitate the \*\*\*bifidogenic\*\*\* effect in infant formulas. The different theories formed for the classification of this principle focus on either the low buffer capacity of mother's milk, the mutarotation of lactose and the existence of antimicrobial and bifidus growth factors, respectively. The \*\*\*bifidogenic\*\*\* principle is, however, in all probability not related to only one of these factors. It can rather be considered a complex of interacting factors, of which rapid gastric emptying due to the relatively high concentration of free amino acids and \*\*\*peptides\*\*\*, missing bacterial colonization of the small bowel, absence of antigenic effects of the food protein and low enterocyte regeneration may play an additional role. These aspects can be looked upon as a challenge for further research on mother's milk composition and on the metabolic effects of its constituents in future.

=> d his

(FILE 'HOME' ENTERED AT 09:54:47 ON 06 JUN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 09:55:09 ON 06 JUN 2003

L1 306 S BIFIDOGENIC  
 L2 8 S L1 (P) PEPTIDE  
 L3 3 DUPLICATE REMOVE L2 (5 DUPLICATES REMOVED)

=> s milk (p) peptide

L4 7319 MILK (P) PEPTIDE

=> s 14 (p) 11  
L5 8 L4 (P) L1

=> duplicate remove 15  
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'  
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n  
PROCESSING COMPLETED FOR L5  
L6 3 DUPLICATE REMOVE L5 (5 DUPLICATES REMOVED)

=> s 16 not 13  
L7 0 L6 NOT L3

=> s bifidobacterium bifidum  
L8 1929 BIFIDOBACTERIUM BIFIDUM

=> s coli  
L9 1054550 COLI

=> s 18 (p) 1p  
L10 17 L8 (P) LP

=> s 110 (p) peptide  
L11 0 L10 (P) PEPTIDE

=> d his

(FILE 'HOME' ENTERED AT 09:54:47 ON 06 JUN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT  
09:55:09 ON 06 JUN 2003

L1 306 S BIFIDOGENIC  
L2 8 S L1 (P) PEPTIDE  
L3 3 DUPLICATE REMOVE L2 (5 DUPLICATES REMOVED)  
L4 7319 S MILK (P) PEPTIDE  
L5 8 S L4 (P) L1  
L6 3 DUPLICATE REMOVE L5 (5 DUPLICATES REMOVED)  
L7 0 S L6 NOT L3  
L8 1929 S BIFIDOBACTERIUM BIFIDUM  
L9 1054550 S COLI  
L10 17 S L8 (P) LP  
L11 0 S L10 (P) PEPTIDE

=> log y		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	23.23	23.44
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
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